



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,611	04/13/2006	Arun Ramaswamy	20004/67-US	9094
81905 7590 09/29/2009 Hanley, Flight & Zimmerman, LLC 150 S. Wacker Dr. Suite 2100 Chicago, IL 60606				
EXAMINER				
TAHA, SHAQ				
ART UNIT		PAPER NUMBER		
2446				
NOTIFICATION DATE		DELIVERY MODE		
09/29/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jflight@hfzlaw.com
mhanley@hfzlaw.com
docketing@hfzlaw.com

Office Action Summary**Application No.**

10/540,611

Applicant(s)

RAMASWAMY ET AL.

Examiner

SHAQ TAHA

Art Unit

2446

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 15, 17 - 22, 24 - 47, 50 - 71, 73 - 96, and 98 - 111 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 15, 17 - 22, 24 - 47, 50 - 71, 73 - 96, and 98 - 111 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This is a Final action for application number 11/540,611 in response a non final action filed on 06/01/2009. Claims 1 - 15, 17 - 22, 24 - 47, 50 - 71, 73 - 96, and 98 - 111 are currently pending and have been considered below. Claims 1, 24, 50 - 71, 73, and 98 are amended. Claims 1, 24, 50, 73, and 98 are independent claims.

Response to Arguments

Applicant's arguments with respect to claims 1 - 15, 17 - 22, 24 - 47, 50 - 71, 73 - 96, and 98 - 111 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 5, 11 – 15, 17 – 21, 24 - 28, 31, 34 – 47, 50 - 54, 60 – 71, 73 - 77, 83 – 96, 98 – 102, and 108 – 111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. (US 2002/0138852) in view of Neuhauser et al. (US 2004/0064319) and further in view of Eid et al. (6,115,654)

Regarding claims 1, 24, 50, 73, and 98, a method for transcoding a media signal conveyed via a home network comprising: extracting metadata from the media signal to form extracted metadata, **[Decoder 304 may extract framework information from the delivery stream Omni menu, wherein the receiver 302 in Fig. 3 receives media data and connected to client devices, (Reynolds et al., Paragraph 58)],**

determining via the home network a capability of a media metering device to sense media content consumption associated with a second media consumption device communicatively coupled to the home network, **[Receivers 114 may vary in capability and may include upstream (reverse path) communication from the receiver to the head end system, or may use other return systems such as an Internet connection, wherein the receiver is a metering device that is connected to a client device in home network as shown in Fig. 1, (Reynolds et al., Paragraph 55)],**

wherein the media metering device is to collect audience measurement data associated with the second media consumption device, **[Receiver cache 310 may be employed to store the framework definition and any parameters, code objects, data items or other software to control Omni menu display and response to user input, wherein cache 310 is located in the receiver device 114 as shown in Fig. 3, (Reynolds et al., Paragraph 58)],**

determining a second media format based on the capability of the media metering device to sense media content consumption, **[Receiver 302 receives data associated with a content package and employs the data to access the package**

contents. Advanced receivers may check system capabilities to determine which pieces of content may be rendered. For example, a digital set top box may be able to decode MPEG video and audio, (Reynolds et al., Paragraph 59)],

and sending the converted media information to at least one of the second media consumption device or the media metering device via the home network, **[Media controller 308 selects the proper media PIDS as needed and feeds them to display device(s) 116, audio device(s) 118, or user input device(s) 120, wherein after the receiver 114 receives the media and converts it depending on the capabilities of the displaying device, the receiver sends the converted media to the display device 116, (Reynolds et al., Paragraph 58)],**

Reynolds et al. fails to teach a metering device,

Neuhauser et al. teaches a portable monitoring device such as a portable people meter, **(Neuhauser et al., Paragraph 77)**, in order to provide a method for gathering audience measurement data relating to receipt of and/or exposure to audio data by an audience member, **(Neuhauser et al., Abstract)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Reynolds et al. by including a metering device wherein Neuhauser et al. teaches a portable monitoring device such as a portable people meter, **(Neuhauser et al., Paragraph 77)**, in order to provide a method for gathering audience measurement data relating to receipt of and/or exposure to audio data by an audience member, **(Neuhauser et al., Abstract)**,

The modified Reynolds et al. fails to teach converting the extracted metadata from a first media format associated with a first media consumption device communicatively coupled to the home network to the second media format associated with the media metering device to form converted media information,

Eid et al. teaches convert the response signals into a parametric measurement that is transmitted in a common digital format to the host computer system, (**Eid et al., Col. 8, lines 38 – 43**), in order to communicate with a multiplicity of sensor types in a common communications format without the necessity of using several kinds of different circuits to control each individual sensor, (**Eid et al., Col. 2, lines 8 – 12**),

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the modified Reynolds et al. by converting the extracted metadata from a first media format associated with a first media consumption device communicatively coupled to the home network to the second media format associated with the media metering device to form converted media information, (**Eid et al., Col. 8, lines 38 – 43**), in order to communicate with a multiplicity of sensor types in a common communications format without the necessity of using several kinds of different circuits to control each individual sensor, (**Eid et al., Col. 2, lines 8 – 12**).

Regarding claims 2, 25, 51, 74, and 99, a method as defined in claim 1, further comprising converting media content associated with the media signal from a third media format to a fourth media format to form the converted media information, **[The receiver of the present invention has the internal compatibility to be able to**

receive the Omni media packaged signal and decode the parts that are relevant to its capabilities to give the fullest experience it can, regardless of the format, (Reynolds et al., Paragraph 59)].

Regarding claim 3, 26, 52, 75, and 100, a method as defined in claim 1, wherein converting the extracted metadata from the first media format to the second media format to form the converted media information comprises identifying at least one of the first media format or the second media format prior to converting the extracted metadata, **[advanced receivers may check system capabilities to determine which pieces of content may be rendered. For example, a digital set top box may be able to decode MPEG video and audio, (Reynolds et al., Paragraph 59)].**

Regarding claim 4, 27, 53, 76, and 101, a method as defined in claim 3, wherein identifying the second media format comprises identifying a the second media format as being detectable by the media metering device associated with the second media consumption device, **[advanced receivers may check system capabilities to determine which pieces of content may be rendered. For example, a digital set top box may be able to decode MPEG video and audio, (Reynolds et al., Paragraph 59)].**

Regarding claim 5, 28, 54, 77, and 102, a method as defined in claim 4, wherein identifying the media format detectable by the media metering device comprises

identifying at least one of an audio watermark sensor, a video watermark sensor, a digital bit stream sensor, a database sensor, or a software sensor associated with the media metering device, **[reception of media from a range of sources wherein the media may comprise a plurality of video streams, audio streams, and other information, such as may be accessed via the Internet, (Reynolds et al., Paragraph 3)]**.

Regarding claim 11, 34, 60, 83, and 108, a method as defined in claim 1, wherein converting the extracted metadata from the first media format to the second media format to form the converted media information comprises: encoding the extracted metadata in the second media format; and digitally inserting encoded metadata into a bit stream associated with the converted media information, **[Audio may be encoded with a video source, such as may be practiced with packet-based streaming media, (Reynolds et al., Paragraph 22)]**.

Regarding claim 12, 35, 61, 84, and 109, a method as defined in claim 1, wherein converting the extracted metadata from the first media format to the second media format to form the converted media information comprises converting the extracted metadata to cause converted media content to be stored in a database, **[Receiver cache 310 may be employed to store the framework definition and any parameters, code objects, data items or other software to control Omni menu display and response to user input, wherein cache 310 is located in the receiver**

device 114 as shown in Fig. 3, (Reynolds et al., Paragraph 58)].

Regarding claim 13, 36, 62, 85, and 110, a method as defined in claim 1, wherein converting the extracted metadata from the first media format to the second media format to form the converted media information comprises converting the extracted metadata to cause converted metadata to be extracted from the second media consumption device based on an application program interface associated with the second media consumption device, **[An Omni menu is an interactive user interface that presents a menu of options available with an Omni media package. Options may comprise different video streams, different television layout, different audio sources, and other interactive data streams, (Reynolds et al., Paragraph 29)].**

Regarding claim 14, 40, 63, 86, a method as defined in claim 1, wherein extracting the metadata from the media signal comprises de multiplexing the media signal, **[A simple movie with no added content may be delivered on a single broadcast multiplex, while a package for the Super Bowl would contain many different delivery mechanisms, (Reynolds et al., Paragraph 54)].**

Regarding claim 15, 37, 64, 87, and 111, a method as defined in claim 1 further comprising generating a converted media signal having the converted media information, wherein the converted media information includes at least one of converted media content and converted metadata associated with the converted media content,

[Media controller 308 selects the proper media PIDS as needed and feeds them to display device(s) 116, audio device(s) 118, or user input device(s) 120, wherein after the receiver 114 receives the media and converts it depending on the capabilities of the displaying device, the receiver sends the converted media to the display device 116, (Reynolds et al., Paragraph 58)]

Regarding claim 17, 66, 89, a method as defined in claim 1, further comprising monitoring media consumption based on the converted media information, **[graphical metadata may be sent to metadata preprocessor 214 in a computer graphics format (Photo Shop, for example) that then may be converted to a format that the display platform recognizes, (Reynolds et al., Paragraph 47)]**.

Regarding claim 18, 42, 67, 90, a method as defined in claim 1, wherein the metadata comprises at least one of content identification information, source identification information, destination device identification information, distribution channel identification information, timestamps associated with at least one of creation and generation of media content, or information associated with the media signal, **[Metadata may be time synchronized, content related, or ancillary to an event, (Reynolds et al., Paragraph 22)]**.

Regarding claim 19, 43, 68, 91, a method as defined in claim 18, wherein the information associated with the media signal comprises at least one of frequency

information, format information, signal strength information, bit rate information, frame rate information, a-rotor sampling frequency information, **[The framework controller provides the frequency, PID and bandwidth information from the framework definition and uses it to send/control video and audio packager 218/220, (Reynolds et al., Paragraph 56)].**

Regarding claim 20, 44, 69, 93, a method as defined in claim 1, wherein at least one of the first media consumption device or the second media consumption device is one of a television, a radio, a personal computer, a personal digital assistant, a telephone, a digital video disk player, angora personal video recorder, **[framework definition provides organization of media for transmission, and for rendering of media by a display platform that may comprise a television, interactive television, set-top box, satellite receiver, personal computer or other operable to receive data across a network, (Reynolds et al., Paragraph 20)].**

Regarding claim 21, 45, 70, 92, a method as defined in claim 1, wherein the home network comprises at least one of a wired network or a wireless network, **[The present invention may be employed with broadcast systems that utilize terrestrial, cable, satellite, VDSL, or other transport methods, (Reynolds et al., Paragraph 21)].**

Regarding claim 22, 46, 71, 96, a method as defined in claim 1, wherein the home network comprises at least one of a server, a database, or a data measurement collection device, **[Receiver cache 310 may be employed to store the framework definition and any parameters, code objects, data items or other software to control Omni menu display and response to user input, (Reynolds et al., Paragraph 58)].**

Regarding claims 31, 94 and 95, an apparatus as defined in claim 26, wherein the identification device and the encoding device are integrated within a single device, **[The receiver 302 may comprise a decoder 304, parser 306, media controller 308, receiver cache 310 and receiver controller 312, (Reynolds et al., Paragraph 58)].**

Regarding claim 38, 65, and 88, an apparatus as defined in claim 24, wherein the network interface is configured to transmit a converted media signal having the converted media information to at least one of the second media consumption device or the media metering device associated with the second media consumption device, and wherein the converted media information includes at least one of converted media content or converted metadata associated with the converted media content, **[Receiver 302 receives data associated with a content package and employs the data to access the package contents. Advanced receivers may check system capabilities to determine which pieces of content may be rendered. For example, a digital set**

top box may be able to decode MPEG video and audio, (Reynolds et al., Paragraph 59)].

Regarding claim 39, an apparatus as defined in claim 24, wherein the network interface is configured to receive the media signal from the first media consumption device, **[a framework controller that receives the video source, audio source, and metadata source and produces an Omni media package integrating the outputs into a framework, (Reynolds et al., Paragraph 10)].**

Regarding claim 41, an apparatus as defined in claim 24 further comprising a memory to store the media signal, **[Receiver cache 310 may be employed to store the framework definition and any parameters, code objects, data items or other software to control Omni menu display and response to user input, (Reynolds et al., Paragraph 58)].**

Claims 6 – 10, 29, 30, 32, 33, 55 – 59, 78 – 82, and 103 - 107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. (US 2002/0138852) in view of Eid et al. (6,115,654) in view of Neuhauser et al. (US 2004/0064319) and further in view Levy et al. (2001/0044899).

Regarding claim 6, 29, 55, 78, and 103, The modified Reynolds et al. teaches comparing the format of the media with a transmission format and converts media of other formats to that of the transmission format, **(Reynolds et al., Paragra7)**,

The modified Reynolds et al. fails to teach detecting a watermark associated with the media signal and identifying a signal compression ratio associated with the watermark, and modifying the signal compression ratio based on the second media format,

Levy et al. teaches a transmarking method to detect the first digital watermark, **(Levy et al., Abstract)**, and the watermarked signal may be converted to another format, such as com pressing the signal before the transmarking process proceeds, **(Levy et al., Paragraph 28)**, and parameters that may specify limits on the watermark strength, or define a perceptibility threshold that can be measured automatically, like Peak Signal to Noise Ratio, typically used in analysis of digital watermarking methods, **(Levy et al., Paragraph 31)**, in order to convert the media signal to a different format, and embeds message information from the first digital watermark into a second digital watermark in the converted media signal, **(Levy et al., Abstract)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the modified Reynolds by detecting a watermark associated with the media signal and identifying a signal compression ratio associated with the watermark, and modifying the signal compression ratio based on the second media format, in order to convert the media signal to a different format, and embeds message information from the first digital watermark into a second digital watermark in the converted media signal, **(Levy et al., Abstract)**.

Regarding claim 7, 30, 56, 79, and 104, a method as defined in claim 6, wherein modifying the signal compression ratio based on the second media format comprises comparing an output bit rate associated with the signal compression ratio to a network bit rate associated with the home network, **[A High bit rate video Video feed of an interview with stream intended for H. G. Wells about the making of and full screen video hysteria generated by the original broadcast, (Reynolds et al., Paragraph 28)]**.

Regarding claim 8, 57, 80, and 105, a method as defined in claim 6, wherein modifying the signal compression ratio based on the second media format comprises changing an output bit rate based on a network bit rate associated with the home network, **[Low bit rate video Camera focused on player A's coach stream intended for and family members, (Reynolds et al., Paragraph 24)]**.

Regarding claim 9, 32, 58, 81, and 106, The modified Reynolds et al. teaches comparing the format of the media with a transmission format and converts media of other formats to that of the transmission format, **(Reynolds et al., Paragraph7)**,

The modified Reynolds et al. fails to teach generating a watermark based on the second media format and inserting the watermark in the converted media information,

Levy et al. teaches generating a watermark as shown in Fig. 1, Ref # 46, **(Levy et al., Paragraph 41)**, and inserting the watermark in the converted media information, encoding a new watermark that does not interfere with an existing watermark (e.g., insert the new watermark in unmarked portions of the media object or in a non-interfering transform domain), **(Levy et al., Paragraph 19)**, in order to convert the media signal to a different format, and embeds message information from the first digital watermark into a second digital watermark in the converted media signal, **(Levy et al., Abstract)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the modified Reynolds by generating a watermark as shown in Fig. 1, Ref # 46, **(Levy et al., Paragraph 41)**, and inserting the watermark in the converted media information, encoding a new watermark that does not interfere with an existing watermark (e.g., insert the new watermark in unmarked portions of the media object or in a non-interfering transform domain), **(Levy et al., Paragraph 19)**, in order to convert the media signal to a different format, and embeds message information from the first digital watermark into a second digital watermark in the

converted media signal, **(Levy et al., Abstract)**.

Regarding claim 10, 33, 59, 82, and 107, The modified Reynolds et al. teaches comparing the format of the media with a transmission format and converts media of other formats to that of the transmission format, **(Reynolds et al., Paragraph7)**,

The modified Reynolds et al. fails to teach providing correlation information associated with the watermark and the converted media information to at least one of a data measurement collection device or a data collection facility,

Levy et al. teaches that the detector looks for attributes of the watermark signal, such as by using correlation or a statistical analysis to detect the shifted versions, **(Levy et al., Paragraph 25)**, in order to convert the media signal to a different format, and embeds message information from the first digital watermark into a second digital watermark in the converted media signal, **(Levy et al., Abstract)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the modified Reynolds providing correlation information associated with the watermark and the converted media information to at least one of a data measurement collection device or a data collection facility**(Levy et al., Paragraph 25)**, in order to convert the media signal to a different format, and embeds message information from the first digital watermark into a second digital watermark in the converted media signal, **(Levy et al., Abstract)**.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Shaq Taha** whose telephone number is 571-270-1921. The examiner can normally be reached on 8:30am-5pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Jeff Pwu** can be reached on 571-272-6798.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Shaq Taha/

Examiner, Art Unit 2446

/Jeffrey Pwu/

Supervisory Patent Examiner, Art Unit 2446